

REMARKS

Entry of the foregoing is appropriate pursuant to 37 C.F.R. §1.116 in that the amendment raises no new issues. Applicants also respectfully submit that the amendment resolves the outstanding rejections, or, in the alternative, places the claims in better form for appeal. Reexamination and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: page 2, lines 1-14 and the original claims.

Applicants gratefully acknowledge the courtesies extended by Examiners Belyaev and Griffin during the personal interview with Applicants' representative on February 2, 2010. During the interview, differences between the invention and prior art were discussed, along with possible amendments to the claims.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

Claims 1-11 and 18-19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,951,119 to Quenzer (hereafter "*Quenzer*") and in view of the publication Compact Self-Aligning Assemblies with Refractive Microlens Arrays made by Contactless Embossing by Schulze (hereafter "*Schulze*") on the grounds set forth in paragraph 4 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

The present invention is directed to a method of treating a surface of a pre-existing optical lens in order to improve the optical properties of the previously-

formed lens. A method performed according to the principles of the present invention is set forth in claim 1. Claim 1 recites:

1. *A method for follow-up treatment of the contour of the surface of at least one optical lens, the method comprising:*
providing an optical lens which is made of glass or a glass-type material and which has a convex lens surface delimited by a circumferential line abutting on a plane section surrounding said circumferential line and which has a lens underside facing the convex lens surface,
placing along said circumferential line of the optical lens on said plane section a means matching said circumferential line and at least laterally bordering said convex lens surface,
performing a temperature treatment comprising heating said optical lens to a temperature of at least the transformation temperature of said glass or glass-type material, wherein pressure equalization prevails between said convex lens surface and said lens underside, and
removing said means from said optical lens after a period of time, during which said optical lens undergoes said temperature treatment and subsequent cooling below said transformation temperature,
wherein the steps are performed in the recited sequence.

Neither *Quenzer et al.* nor *Schulze* disclose or suggest the method of the presently claimed invention? Instead, each relate to initial forming of a lens from a flat substrate. As evident from the above, claim 1 is directed to a method for follow-up treatment of the contour of the surface of at least one optical lens with an initial step of "providing an optical lens ... which has a convex lens surface (emphasis added)," and with subsequent steps acting on said lens. Thus, it is clear that the method of claim 1 is directed to the treatment of a pre-existing or previously formed optical lens.

Quenzer is directed to a method for producing micromechanical and microoptical components. *Quenzer* corresponds to WO 01/38240, which is

discussed at length on pages 1-2 of the present specification. However, contrary to the above-noted requirements of claim 1, *Quenzer* is directed to a method for creating a curved or contoured surface on at least one side of a flat glass-like substrate (3) in the first instance, not a follow-up treatment on a preexisting contoured lens surface. The rejection notes that *Quenzer* discloses "methods of structuring surfaces of micro-mechanical and/or micro-optical components and/or functional elements consisting of glass or glass-type materials," however it is clear from the remainder of *Quenzer* that "structuring" in this context means "preparing." For example, nowhere does *Quenzer* disclose or suggest performing the claimed temperature treatment on a preexisting lens. Thus, *Quenzer* fails to disclose, or even suggest, at least this aspect of the presently claimed invention. In addition, as admitted on page 5 of the Official Action, *Quenzer* does not disclose additional aspects of the method recited in claim 1.

Schulze is cited as allegedly satisfying these deficiencies of *Quenzer* with respect to the requirements of claim 1. However, just like *Quenzer*, *Schulze* discloses techniques for taking a flat piece of material and creating a curved or contoured surface on at least one side thereof. This is clearly illustrated in Figures 2-3 of *Schulze*. As with *Quenzer*, *Schulze* fails to disclose, or even suggest, a follow-up treatment of the contour of the surface of at least one optical lens having a convex surface, as clearly required by claim 1. Thus, even if the proposed combination of prior art references were appropriate, the claimed invention would not result. Reconsideration and withdrawal of the rejection is respectfully requested.

The remaining claims rejected on the above-noted grounds depend from claim 1. Thus, these claims are also distinguishable over *Quenzer* in view of *Schulze* for at least the same reasons noted above.

It is respectfully submitted that claim 6 is separately patentable. Claim 6 depends from claim 1 and additionally requires that an elliptical gradient on the contour of the pre-formed optical lens, and that this gradient is reduced or eliminated through the steps taken by the method of the presently claimed invention. It is alleged that *Quenzer* teaches this aspect of claim 6 at column 8, lines 22-35. This assertion is respectfully traversed. This portion of the *Quenzer* disclosure is reproduced below:

For maintaining the concave dents forming on the upper side of the glass wafer (3) during the annealing process, which upper side is turned away from the Si wafer (2) and which dents are provided to serve technological applications of interest, as will be set out in the following, the structured surface of the Si wafer (2) should have dents of the structure widths B and the glass wafer (3) should have a thickness D, which satisfy the following relationship:

$$B \geq 0.1D$$

In this manner it will be ensured that the material flow into the recesses will actually produce the desired effects on the opposite side of the glass wafer (3) and results in the concave dents.

This portion of *Quenzer* refers to concave "dents" formed on the surface of a flat substrate through the melt flow process of *Quenzer*. It does not contain any reference whatsoever to the elimination of an elliptical gradient present on the curvature or contour of a surface of a pre-existing or a pre-formed optical lens. To reiterate, *Quenzer* discloses a technique whereby such an elliptical gradient is created in the first place. Thus, claim 6 is distinguishable over *Quenzer* in view of *Schulze* for at least this additional reason.

CONCLUSION


From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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Date: February 16, 2010

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